

6 June 1960

MEMORANDUM FOR: Chief, Geographic Research

SUBJECT: Potential D/GG Requirements for Machine
Translations

1. The following list of potential D/GG requirements for machine translation is based on an assumption that it should apply only to languages for which there may be a large bulk requirement within the intelligence community.

a. Languages and estimated pages required:

| | |
|------------|--------|
| Albanian | 1,000 |
| Arabic | 1,000 |
| Bulgarian | 1,000 |
| Chinese | 7,000 |
| Czech | 1,300 |
| French | 3,900 |
| German | 3,800 |
| Hungarian | 1,500 |
| Japanese | 1,000 |
| Korean | 1,000 |
| Polish | 5,000 |
| Portuguese | 2,900 |
| Rumanian | 1,000 |
| Russian | 10,900 |
| Slovene | 3,000 |
| Spanish | 1,700 |

The figures specified apply only to the first year; needs would doubtless drop off as back work is taken care of and experience is applied to the exercise of selectivity.

b. Requirements for translations in the following subjects, fields, or disciplines would be submitted:

1) Physical geography

- a) Geology
- b) Physiography
- c) Pedology
- d) Climatology
- e) Hydrography
- f) Oceanography

2) Biogeography

- a) Plant and animal ecology


SUBJECT: Potential D/GG Requirements for Machine Translations

- 3) Economic geography
 - a) Natural resources
 - b) Agricultural geography
 - c) Water conservancy
 - d) Forestry
 - e) Fisheries
 - f) Industrial geography
 - g) Transportation geography
- 4) Human geography
 - a) Population geography
 - b) Census results
 - c) Ethnography
- 5) Political geography
 - a) International boundaries
 - b) Internal boundaries and administrative structure
 - c) Geopolitics
- 6) Military geography
 - a. Relation of physical and cultural geographic factors to military operations
- 7) Geographic methodology
 - a) Aerial photography techniques
 - b) Survey and mapping techniques
 - c) Cartography
 - d) Sampling techniques for research
- 8) Geodesy, gravimetry
- 9) Astronomy
- 10) Mapping programs
- 11) Expeditions and explorations; regional description and travel accounts

2. An unlimited translation capability, by broadening the base of research resources available to us, might increase our ability to answer priority requests for geographic intelligence. It might also reduce the time presently required in the research phase of report preparations. Neither of these benefits would materialize, however,

SUBJECT: Potential D/GG Requirements for Machine Translation

unless: 1) the proposed translation capabilities are accompanied by provision for additional clerical and semi-professional personnel to receive, scan, collate, and file the output; 2) acceptable screening procedures are established to prevent analysts from being deluged with mass translations of materials of sub-marginal value; 3) the resultant translation is readily useable by analysts with a minimum of editing or "retranslating"; 4) and an indexing capability is incorporated in the machine. We feel that for best results the accumulated experience and expertise of the present corps of human translators should be tied directly into the machine's programming. Such a staff will also be required for handling maps, sketches, and photographs contained in the materials being translated.


Chief, Geography Division

25X1A9a